IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously presented) A method of data transfer, the method comprising:

maintaining at an optical line termination (OLT), a system time;

transmitting, to an optical network unit (ONU), an indication of ~~a time relative to a current~~ the system time;

~~maintaining at the ONU, one or more counters synchronized to the current system time;~~

responsive to the indication, synchronizing one or more counters at the ONU to the system time;

~~receiving network data collected at the ONU in accordance with the transmitted indication; and~~

at the ONU, collecting portions of network data in intervals based on the system time; and

storing the received network data.

2. (Original) The method of claim 1, further comprising:

receiving, from a management system, a request for network data; and

transmitting, to the management system in accordance with the request, at least a portion of the stored network data.

3. (Original) The method of claim 2, wherein the request for network data pertains to a plurality of ONUs.

4. (Original) The method of claim 1, further comprising:

receiving a request to reset network data associated with the ONU; and

deleting at least a portion of the stored network data.

5. (Original) The method of claim 1, wherein the stored network data includes a plurality of bins.

6. (Original) The method of claim 1, wherein the network data is collected and received at 15-minute intervals.

7. (Original) The method of claim 1, wherein the stored network data includes at least one daily counter.

8. (Previously presented) A method of data transfer, the method comprising:

transmitting, to an ONU, an indication of a time relative to a current system time;

receiving network data collected at the ONU in accordance with the transmitted indication;

storing the received network data;

receiving a new system time; and

resetting at least a portion of the stored network data if a difference between the new system time and a current system time exceeds a predetermined value.

9. (Original) The method of claim 8, wherein the resetting includes deleting at least a portion of the stored network data.

10. (Original) The method of claim 1, further comprising maintaining a flag indicative of a validity of the received network data.

11. (Original) The method of claim 1, wherein the ONU comprises an optical network termination (ONT).

12. (Original) The method of claim 1, wherein the network data comprises performance data monitored at the ONU.

13. (Original) The method of claim 1, wherein the received network data is stored locally.

14. **(Currently amended)** A method of data transfer, the method comprising:

receiving, from an optical line termination (OLT), an indication of ~~a time relative to a current~~ an OLT system time;

collecting network data ~~in accordance with the received indication~~;

associating portions of the network data with corresponding time intervals at the ONU, wherein the time intervals are synchronized to the OLT system time; and

transmitting the collected network data to the OLT. ~~OLT, wherein portions of the collected network data are identified with time intervals synchronized by the received indication.~~

15. (Original) The method of claim 14, wherein the network data are collected in at least one 15-minute bin.

16. (Original) The method of claim 14, further comprising receiving, from the OLT, a request for network data.

17. (Original) The method of claim 14, further comprising:

receiving, from the OLT, a request to reset network data; and

deleting the collected network data.

18. (Original) The method of claim 14, further comprising maintaining a flag indicative of a validity of the collected network data.

19. **(Currently amended)** An optical line termination (OLT) configured to operate in a passive optical network, the OLT comprising:

a transmitter configured to transmit, to an optical network unit (ONU), an indication of a ~~time relative to a~~ current system time;

a receiver configured to receive network data collected at the ONU ~~in accordance with the transmitted indication~~; and

a storage device configured to store the received network data, wherein

~~portions of the received network data are identified with time intervals associated with the transmitted indication~~

the network data are collected in a plurality of time intervals, and

the indication is for synchronizing each of the plurality of time intervals to the current system time.

20. (Original) The OLT of claim 19, wherein:

the receiver is further configured to receive, from a management system, a request for network data, and

the transmitter is further configured to transmit, to the management system in accordance with the request, at least a portion of the stored network data.

21. (Original) The OLT of claim 20, wherein the network data comprises performance data monitored at the ONU.

22. (Original) The OLT of claim 19, wherein the stored network data includes at least one daily counter.

23. **(Currently amended)** An optical network unit (ONU) configured to operate in a passive optical network, the ONU comprising:

a receiver configured to receive, from an optical line termination (OLT), an indication of a time relative to a current system time;

one or more counters synchronized by the indication to ~~the current~~ an OLT system time;

a data collector configured to collect network data ~~in accordance with the received indication~~ associated with time intervals synchronized to with the OLT system time; and

a transmitter configured to transmit the collected network data to the OLT.

24. (Original) The ONU of claim 23, wherein the ONU is configured to maintain a flag indicative of a validity of the collected network data.

25. **(Currently amended)** A data storage medium having instructions executable by an array of logic elements, said instructions describing a method of data transfer, the method comprising:

maintaining an optical line termination (OLT) system time;

transmitting, to an optical network unit (ONU), an indication of ~~a time relative to a current~~ of OLT system time;

~~receiving network data collected at the ONU in accordance with the transmitted indication; and~~

at the ONU, collecting network data and associating the network data with the OLT system time; and

storing the received network data. ~~data, wherein~~

~~portions of the received network data are identified with time intervals associated with the transmitted indication.~~

26. (Original) The medium of claim 25, the method further comprising:

receiving, from a management system, a request for network data; and

transmitting, to the management system in accordance with the request, at least a portion of the stored network data.

27. **(Currently amended)** A data storage medium having instructions executable by an array of logic elements, said instructions describing a method of data transfer, the method comprising:

receiving, from an optical line termination (OLT), an indication of ~~a time relative to a current~~ system time maintained at the OLT;

responsive to the indication, synchronizing one or more counters to the system time;

~~collecting network data in accordance with the received indication; and~~

collecting portions of network data in intervals based on the system time; and

transmitting the collected network data to the OLT. ~~OLT, wherein~~

~~portions of the collected network data are identified with time intervals synchronized by the received indication~~

the collecting is synchronized to the system time.

28. (Original) The medium of claim 27, the method further comprising maintaining a flag indicative of a validity of the collected network data.

29. (New) The method of claim 1, wherein the time intervals are measured by at least one of the one or more counters.

30. (New) The method of claim 15, wherein each 15-minute bin is associated with an interval end time that is substantially coincident with an identified point in system time.

31. (New) The method of claim 23, wherein the plurality of time intervals includes three or more different time intervals.

32. (New) The method of claim 8, further comprising:

receiving, from a management system, a request for network data; and

transmitting, to the management system in accordance with the request, at least a portion of the stored network data.

33. (New) The method of claim 32, wherein the request for network data pertains to a plurality of ONUs.

34. (New) The method of claim 8, further comprising:

receiving a request to reset network data associated with the ONU; and

deleting at least a portion of the stored network data.

35. (New) The method of claim 8, wherein the stored network data includes a plurality of bins.

36. (New) The method of claim 8, wherein the network data is collected and received at 15-minute intervals.

37. (New) The method of claim 8, wherein the stored network data includes at least one daily counter.